CALIFORNIA COASTAL COMMISSION
CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
(831) 427-4863

Th23b

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COASTAL DEVELOPMENT PERMIT

Application number..... 3-02-100, Port San Luis Harbor Maintenance Dredging

Applicant..... Port San Luis Harbor District

Project location..... Port San Luis Harbor, Avila Beach (San Luis Obispo County).

Project description..... Request for five-year permit to: (1) annually dredge up to 250,000 cubic yards of sediment from harbor basin; (2) annually dispose of up to 250,000 cubic yards of sediment from harbor basin into the intertidal zone and sandy beach areas of San Luis Obispo Bay.

File documents..... CCC Coastal Development Permit Applications 3-93-027,3-97-078, 3-97-078-A; *Sediment Sampling and Analysis Plan* (Tenera Environmental, July 31, 2002); *Sediment Sampling and Analysis Report in Support of 2003 Dredge Permit Application* (Tenera Environmental, March 10, 2003); *Subtidal Substrate Survey using Sidescan Sonar Imagery* (Tenera Environmental, February 5, 2003); *Study of Sand Shoaling at Port San Luis* (Moffatt and Nichol, June 1998); *Year-2000 Sediment Management Tactic for Port San Luis* (Everts Coastal, January 11, 2000).

Agency approvals..... For maintenance dredge operation: (Pending) ACOE Section 404 Clean Water Act application No. 200-201-383-LM.

Staff recommendation ..... **Approval with Conditions**

Summary of Staff Recommendation

The Port San Luis Harbor District has applied for a new five-year permit to conduct annual maintenance dredging. In comparison to previous 5-year permits that authorized 30,000 cubic yards of dredging per year, the Harbor District is requesting permission to annually dredge 250,000 cubic yards (CY) of material. Approximately 32 acres of the harbor would be dredged to a depth of –10 feet below mean lower low water (MLLW) in the area surrounding the Port's Mobile Hoist Basin, Sport Launch Basin and Harford Pier areas, with disposal of the material in six (6) nearshore and sandy beach areas of San Luis Bay. Port San Luis Harbor is located near Avila Beach in San Luis Obispo County.

The Harbor District states that sand shoaling has limited the use of harbor facilities, and that the project is necessary to maintain existing depths in existing navigational channels, turning basins, berthing areas and boat launching ramps. The project is essential for recreational boaters, commercial fisherman and various vessels, as well as other coastal dependent and coastal related operations that make use of the Port San

Luis facilities.

While the proposed dredging and dredge material disposal facilitate the continuance of high priority uses under the Coastal Act, the project nevertheless raises Coastal Act issues pertaining to the protection of marine resources, coastal water quality, and public access and recreation.

The Coastal Act requires that projects involving the dredging or filling of coastal waters provide measures to minimize adverse environmental effects (Coastal Act Section 30233), and that marine resources and the biological productivity of coastal waters be maintained (Coastal Act Sections 30230 and 30231). Sensitive biological resources have been identified within the project area including rocky reef substrate, nearshore kelp beds, and eelgrass. Also, the sandy beaches surrounding the project site are known California grunion spawning areas. Dredging and beach disposal operations will increase suspended particulates and turbidity in the harbor area. Sediment resuspension can reduce dissolved oxygen levels and primary productivity, as well as smother and scour benthic habitats. To protect these resources from adverse impacts, the recommended permit conditions require complete avoidance of grunion spawning areas, rocky reef, eelgrass and kelp beds during dredging, and implementation of specific surveying, monitoring and reporting measures should annual dredge volumes exceed 100,000 cubic yard (CY). Should a larger scale dredge operation be implemented, this condition will allow for a better characterization of sensitive areas and will help shape specific buffer areas needed to protect the resource, improve the methodology of disposal operations, and provide for a better understanding of appropriate performance standards that need to be implemented to assure maximum resource protection.

Water quality impacts resulting from dredging operations can occur through a number of variables including dissolved oxygen, pH, salinity, total suspended solids, and turbidity. While changes to these water quality variables would result from the proposed dredge operation, pre-dredge ambient water quality conditions should recur shortly after each dredge episode. Thus, impacts to these water quality variables are expected to be adverse but short-term and minor in magnitude and scope. Furthermore, the sediments were sampled and analyzed and have been deemed chemically and physically suitable for beneficial reuse as beach nourishment and will not adversely impact water quality.

Coastal Act Sections 30210 – 30212 provide for the maximization of public access and recreation. Adverse impacts to public access are possible, but will be of limited duration. Although the project will help protect public access and recreation opportunities by nourishing beach areas with sand, the flexible pipelines used to transport suitable dredge spoils to designated beach replenishment sites can create a modest impediment to pedestrian travel along or to the beach as well as interference with vessel navigation. To minimize these impacts, the recommended conditions require the Port to manage the placement of these pipelines so that they do not interfere with public access or navigation. With these conditions, the project is consistent with the public access and recreation policies of the Coastal Act.

Overall, the dredge program is necessary to protect Coastal Act priority uses, is essential to support commercial fishing and recreational boating, will avoid adverse environmental impacts to coastal marine resources, and will protect public access and recreation. Therefore, Staff recommends that the Commission **approve, with conditions,** the proposed dredging and dredge material disposal project.

Staff Report Contents

1. Staff Recommendation on Permit

The staff recommends that the Commission, after public hearing, **approve** the proposed permit subject to the standard and special conditions below. Staff recommends a **YES** vote on the following motion:

Motion. *I move that the Commission approve Coastal Development Permit Number 3-02-100 pursuant to the staff recommendation.*

Staff Recommendation of Approval. *Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.*

Resolution to Approve a Coastal Development Permit. *The Commission hereby approves the coastal development permit on the ground that the development as subject to conditions, will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either: (1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the amended development on the environment; or (2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse effects of the development on the environment.*

2. Conditions of Approval

Standard Conditions

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

Special Conditions

1. **Scope of Permit.** This permit authorizes dredging and disposal of harbor sediments not to exceed 250,000 cubic yards per year (cy/yr). Any proposed disposal amount over this figure shall require an amendment to this permit.

2. **Permit Expiration**. This permit shall be valid for 5 years from the date of Commission approval (until July 10, 2008), or until the U.S Army Corps of Engineers permit No. 200-201-383-LM for the authorized activities expires, whichever comes first.

3. **Dredging Requirements**. PRIOR TO THE COMMENCEMENT OF EACH DREDGING EPISODE, the permittee shall submit, for Executive Director review and approval, a detailed dredging plan that identifies the areas to be dredged, the project depth, the overdredge depth, the quantity of material to be dredged, and the specific location of dredge spoils disposal. Dredging plans shall incorporate the following provisions:

   a) **Areas To Be Avoided During Sediment Removal**. Mechanical dredging operations shall not occur in sensitive rocky substrate and kelp forest areas identified in Exhibit D of this report. Prior to the commencement of dredging activities, areas to be avoided shall be clearly demarcated with floatable buoys, or other devices which are clearly visible on surface waters, as to allow dredge equipment operators to easily identify areas prohibited from dredging activities.

   b) **100,000 CY threshold requirements.** For dredging activities that will result in removal of 100,000 cubic yards or more of material in a given year, the Permittee shall conduct a pre-dredging biological survey to characterize hard bottom habitat at the Fisherman's Beach, Jetty, West Bluff and Lighthouse Beach disposal sites, if disposal is to occur at any of these sites. The survey results shall be submitted to the Executive Director for review and approval at least 30 days prior to implementation of dredging/disposal activities. If any sensitive resources, such as rocky reefs, kelp beds, marine plants, or invertebrate assemblages are found in the project vicinity, the required dredging plan shall include disposal methods and monitoring and mitigation measures that will prevent dredge spoils from impacting sensitive aquatic habitats.

   c) **Protection of Grunion Spawning.** If disposal and/or grooming of dredge spoils will be conducted during the California grunion spawning season (March 1 – September), the affected beach area shall be monitored by a qualified professional biologist, approved by the Executive Director, to determine if grunion runs are occurring. If grunion runs are observed, the permittee shall cease all sand disposal and spreading operations during any forecasted spawning period, and if any eggs are found, all activities on the beach shall cease until grunion eggs have hatched.

   d) **Jetty Site Sediment Disposal.** Dredge material from the "Jetty" site is not suitable for disposal directly on sandy beach areas. Material from the "Jetty" site shall be disposed of nearshore and only at Olde Port Nearshore Disposal Site or Avila Beach Nearshore Disposal Site. To coincide with San Luis Creek natural discharge events, this material shall only be disposed of between December 1 and April 30.

4. **Conformance with Regional Water Quality Control Board Requirements.** PRIOR TO COMMENCEMENT OF OPERATIONS AUTHORIZED UNDER THIS PERMIT, permittee shall submit to the Executive Director for review a copy of a valid Regional Water Quality Control Board (RWQCB) permit, letter of permission, or evidence that no RWQCB permit is necessary.

5. **Equipment Maintenance.** Dredging equipment (e.g. pipelines, pumps, and barges, etc.) shall be maintained and inspected by Port District staff on a regular schedule to ensure proper operation and to eliminate any potential for spills, waterway or beach access conflicts.

6. **Public Access.** The Permittee shall ensure that dredge operations are conducted as to minimize, to the greatest extent possible, any interference with public access at Port San Luis. In particular, the permittee shall work with the dredge operator to implement measures for those pipeline segments that may occupy beach areas. Short-term measures may include, but are not limited to, uncoupling segments to allow unimpaired pedestrian movement, or building small-scale sand ramps over the pipeline, or pipeline removal during times of peak beach use.

3. Recommended Findings and Declarations

The Commission finds and declares as follows:

A. Project Background

Project Location & Setting

Port San Luis Harbor is located in northern portion of San Luis Bay, just upcoast from the town of Avila Beach. The Bay is hook-shaped and is delineated by Point San Luis to the southwest and Fossil Point to the southeast. The Port facilities are partially protected by a large rock breakwater that extends southeast from Point San Luis (see Exhibits A and B). San Luis Obispo Creek enters San Luis Bay approximately 5,000 feet to the northeast of the Harbor. Small rock outcroppings, nearshore kelp beds and intermittent sandy beaches characterize the coast between Point San Luis and Fossil Point.

Port San Luis lies at the southwest end of the San Luis Obispo Bay Littoral Cell (SLOBLC). A littoral cell is a closed or near-closed coastal system into which sediment is discharged, within which sediment is deposited or scoured, and out of which sediment is lost. The SLOBLC is a 3-mile long, near-closed system contained between Point San Luis at the southwest end and the Fossil Point headland east of Avila Beach.[1] While Point San Luis and the breakwater provide adequate protection from large northwesterly swells, high-energy surges can still produce strong currents and movements of water within the harbor. The seasonal disposition of sediment from San Luis Obispo Creek combined with strong wave action transport sand and other suspended particles into calmer harbor areas where they are eventually deposited. Shoaling of the launch facilities and navigational areas is the result of natural littoral drift processes that are unavoidable. On average, the Port San Luis harbor facilities receive approximately 5,000 to 10,000 cubic yards of sediment per year. Much of this sediment collects at the mobile hoist facility and sport launch basin, and, at times, has rendered these areas impassable to boats (see Exhibit E).

Project Description

The Port San Luis Harbor District has requested approval of: (1) a five-year permit to annually dredge

[1] Everts Coastal, *Year-2000 Sediment Management Tactic for Port San Luis*, January 2000.

approximately 250,000 cubic yards of bottom sediment from a 32 acre site adjacent to the Mobile Hoist Pier, the Sport Launch, and the area adjacent to the Harford Pier, down to a depth of –10 feet below Mean Lower Low Water (MLLW); and (2) the annual disposal 250,000 cubic yards of material into the intertidal zone and sandy beach areas of San Luis Bay.

The Port has historically dealt with shoaling through small-scale annual maintenance dredging events. In the past, Port San Luis has used its own work force and equipment consisting of a small submersible pump, suspended by a landside crane to transport sand over short distances. This method is described by the Port District as being effective, but due to the short reach of land based cranes and piping equipment, is limited to nearshore waters. The following table shows the volume of material dredged from the Sport Launch and Mobile Hoist basins under pervious permits during the period from 1994 to present:

Period of Dredge Activity	**Sport Launch Area Volume Removed (cubic yards)**	**Mobile Hoist Area Volume Removed**
3/94 – 5/94	3,223 (cubic yards)	3,282 (cubic yards)
2/95 – 6/95	3,397	2,768
12/95 – 5/96	3,751	3,711
11/96 – 6/97	3,555	3,904
2/98 (post El Nino storms)	4,882	6,621
2/99 – 8/99	4,407	3,105
11/99 – 12/99	350	0
2/00 – 9/00	3,410	3,563
1/01 – 8/01	7,335	1,420
2/02 – 7/02	4,465	965

The Applicant has indicated that if the opportunity and funding become available, the District would like to utilize a floating, hydraulic or mechanical dredge to remove larger volumes of sediment and dispose of it further away. Currently, annual small-scale maintenance dredging has not been effective and launch facilities have, at times, been closed for public use. While the District will still conduct similar small-scale dredging projects on an as needed basis, they have indicated the need to increase the size of their dredging footprint from 3 acres to 32 acres and the volume of sediment removed from 30,000 cubic yards to 250,000 cubic yards. The District is currently authorized to dispose of dredge material at Olde Port Beach, Avila Beach, and/or Fisherman's Beach in San Luis Bay. The District is now seeking authorization to dispose of dredged materials at three additional sites identified as the Jetty Disposal Site, the West Bluff Disposal Site and the Lighthouse Beach Disposal Site (see Exhibit C Map of Port San Luis Harbor 2003 Dredge and Disposal Sites).

Sediment Analysis and Dredging Operations. To evaluate the potential impacts associated with the

proposed dredging activities, the biological, chemical and physical characteristics of the sediments have been evaluated through sediment sample analyses. Test results have shown that the material to be dredged is almost entirely sand. With the exception of one area north of the Harford Pier, results of particle size analysis indicate that all samples can be characterized as course to medium grained ranging from 94.7%-99.1% sand.[2] On the whole, chemical contaminants have not been an issue at the harbor. However, in order to ensure impacts to water quality and identified sensitive species and habitats are avoided, sediment samples were collected from all of the proposed dredging areas and tested under the most current guidelines of the U.S Environmental Protection Agency (USEPA). In some cases, alternative methods of analysis with more stringent detection limits have been substituted based on conversations with the EPA and California Department of Fish and Game.[3]

B. Coastal Act Issues

1. Land Use Priorities

Port San Luis Harbor serves a number of coastal dependant activities including among other things, commercial fishing and recreational boating. The proposed project includes maintenance dredging to remove accumulated sediment from the boat launching areas and navigational channels. Coastal-dependent and coastal-related developments are among the highest priority Coastal Act uses.

1a. Applicable Policies

The Coastal Act defines coastal-dependent and coastal-related as follows:

> ***§ 30101:*** *"Coastal-dependent development or use" means any development or use which requires a site on, or adjacent to, the sea to be able to function at all.*
>
> ***§ 30101.3:*** *"Coastal-related development" means any use that is dependent on a coastal-dependent development or use.*
>
> **§ *30001.5*** states in part:
>
> *The Legislature further finds and declares that the basic goals of the state for the coastal zone are to:*
>
> *(a) Protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources….*
>
> *(c) Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners.*
>
> *(d) Assure priority for coastal-dependent and coastal-related development over other development on the coast…*

[2] Sand = fraction of sediment passing through #8, but retained by #200 US Standard Sieve
[3] *Port San Luis 2003 Dredge Sampling and Analysis*, Tenera Environmental, March 10, 2003.

Coastal Act Sections 30234, 30234.5 also provide:

> ***§ 30234:*** *Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded. Existing commercial fishing and recreational boating harbor space shall not be reduced unless the demand for those facilities no longer exists or adequate substitute space has been provided. Proposed recreational boating facilities shall, where feasible, be designed and located in such a fashion as not to interfere with the needs of the commercial fishing industry.*
>
> ***§ 30234.5:*** *The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.*

1b. Analysis and Conclusion

Port San Luis Harbor is one of only 2 commercial harbors located in San Luis Obispo County (the other being Morro Bay). Port San Luis provides docking, mooring, and processing fish facilities. In addition to commercial fishing activities, the Port is also a popular sport fishing and recreational destination for the public. The proposed dredging activities not only support coastal-dependent uses, but also are integral to such uses and therefore have a priority under the Coastal Act. Accordingly, proposed development is a high priority coastal use that is consistent with the land use priorities of Coastal Act Sections 30101, 30101.3, 30001.5.

Section 30234 of the Coastal Act provides that facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded. Section 30234.5 states that the economic, commercial, and recreational importance of fishing activities shall be recognized and protected. Commercial and recreational boating and fishing are coastal-dependent priority uses that cannot function without sufficient harbor depths. Hence, the maintenance of adequate berthing and navigational depths in the Harbor is essential, and must be considered a high priority under the Coastal Act. Therefore, the Commission finds that the project is consistent with Coastal Act Sections 30234 and 30234.5.

2. Marine Resources

2a. Applicable Policies

Coastal Act Sections 30230, 30231, and 30233 afford protection of marine resources and their associated biological productivity and state:

> ***§ 30230:*** *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial,*

recreational, scientific, and educational purposes.

§ 30231: *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

§ 30233: *(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*

(l) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for

beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the l9 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

Coastal Act § 30232 requires provisions to prevent spills and ability to contain and cleanup spills should they occur and states,

§ 30232: *Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.*

§ 30231: *The biological productivity and the quality of coastal waters, [..] appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment…*

2b. Analysis

Biologic Resources

Port San Luis Harbor is located at the southwest end of San Luis Bay. San Luis Bay includes valuable marine resources within the Central Coast area and includes a diverse complex of marine habitats including, open ocean, kelp forests, rocky seashore, nearshore intertidal , sandy beaches, coastal streams and wetlands. These habitats support a wide variety of marine life, including benthic communities, marine mammals, fish, and seabirds. In particular, CCC staff has observed seals and sea lions resting upon piers and jetties, sea otters in nearshore kelp beds, a variety of fish species, and shorebirds resting upon the various poles, masts, and other structural development of the Harbor.

Coastal Act Sections 30230 and 30231 afford protection of marine resources and their associated biological productivity. The applicant has performed a subtidal sidescan sonar survey to identify potential biologically sensitive habitat areas, such as rocky reefs, kelp beds and other marine plants, and to evaluate the dredge area and disposal sites accordingly. The sidescan sonar images revealed rocky substrate extending 100 to 300 m from west of the north end of the small boat launch. Kelp beds were also noted in the north part of this subtidal rocky habitat. The removal of sediment from dredge areas that include rocky substrate and kelp forest habitats may adversely impact the biological productivity of these sensitive habitat areas through direct disturbance, scraping, scouring, and hydraulic removal of flora and

fauna. Dredging could result in losses of infaunal and epfaunal biota, and some burrowing and bottom dwelling fish within the dredge footprint.

In order to avoid direct impacts to these sensitive areas consistent with the Coastal Act, Special Condition 3(a) requires that approximately 7 acres within the proposed dredge footprint be excluded from sediment removal activities. Based on side scan sonar images, dredging exclusion zones were applied to areas of rocky substrate and include a small buffer area surrounding the hard bottom and associated kelp beds. The 7-acre area to be avoided is necessary to avoid heavy equipment encroachment and disturbances in sensitive habitat areas. This area is depicted in Exhibit D of this report.

The disposal and grooming of dredge spoils on beach areas has the potential to adversely impact seasonal California grunion (*Leuresthes tenuis*) spawning events because these activities can smother individuals or eggs, and can interfere with the grunion's affinity for a specific beach location. Grunion spawn during the highest nighttime spring tides. Female grunion swim ashore with the rising high tide and lays eggs in the sand which are then fertilized by the male grunion. The eggs incubate in the sand for 10-14 days and then hatch on the next high tide. In the past, California grunion has been observed using the beach areas surrounding the dredge site for spawning. In 1998, grunion were observed spawning on Fisherman's Beach, Old Port Beach, and Avila Beach. All of these sites are included as potential beach replenishment locations. A 1998 memo from the Department of Fish and Game to Commission staff states:

> *"The full effects of dredge material disposal on grunion spawning are unknown, however, we believe that the presence of these materials in the low intertidal zone during the grunion spawning period may physically and/or chemically disturb the grunion's affinity for the beach and/or have and adverse effect upon the eggs. It is the DFG's view that continued disposal of dredged material during the grunion's 4-day spawning period could negatively impact grunion."*

Recent communications with DFG staff have further emphasized the need to avoid grunion during spawning periods.[4] In order to avoid adverse impacts to grunion during spawning periods, Special Condition 3(c) has been included in this permit. The special condition requires monitoring during grunion spawning season (March 1 – September 1) and if identified, will require stoppage of all dredge activities until the eggs have completely hatched. Only with this condition can the project be approved consistent with the Coastal Act.

The proposed dredging also has the potential to impact others sensitive aquatic habitats. The project is located in an area that has been identified as Essential Fish Habitat (EFH) for fish species included in the Coastal Pelagics and Pacific Groundfish Fishery Management Plans, as defined by the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). Dredging and beach disposal activities may adversely affect EFH by increasing concentrations of suspended sediments within the water column, which may reduce the amount of light available to marine flora, modify fish behavior, and/or negatively affect survivorship of fish eggs and larvae. In addition, the proposed activities will directly disturb soft-bottom habitat causing a reduction in the abundance of epifaunal and infaunal organisms, which serve as prey items for a number of fish species. Lastly, disposal of dredged material may smother and/or scour hard-bottom biological communities that may exist in the project area.

[4] Personal Communication with Deborah Johnston, Dept. of Fish and Game, Monterey, May 28, 2003.

To minimize impacts associated with increased turbidity, dredging will be conducted using a hydraulic dredge, which removes and transports dredged material as liquid slurry, thereby reducing disturbance and resuspension of sediments at the dredge site. With regard to the potential for sensitive habitats to be smothered or scoured as a result of dredge spoil disposal, consultations with the National Marine Fisheries Service and the Army Corps of Engineers indicates that disposing 100,000 cubic yards or more of dredged material may indeed disturb aquatic habitats. Therefore, Special Condition 3(b) requires additional surveys and precautions should dredging exceed a 100,000 CY annual threshold level. This condition will allow for a better characterization of sensitive areas should a larger-scale dredge operation take place. Further biological studies will help shape specific buffer areas needed to protect the resource, improve the methodology of disposal operations, and provide for appropriate performance standards that need to be implemented to assure maximum resource protection.

With this condition the project is consistent with Sections 30230 and 30231 of the Coastal Act.

Dredging and Dredge Spoils Disposal

Dredging operations must meet the 3-part test of Section 30233(a) of the Coastal Act (i.e., the allowable use, alternatives, and mitigations tests). Under Section 30233(b), the project must also provide that dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

The project is an allowable use for dredging under Section 30233(a)(2) because it is for the purpose of maintaining existing depths navigational areas. Continued sediment inflows can be anticipated in this area. This can, at times, result in severe impairment of harbor capacity and risk to vessels if no action is taken. As described previously, the current dredge operations have been ineffective due to the limited range and efficiency of the harbors land based equipment. Land based cranes have a limited reach (approx. 80 feet) and current disposal pipes have only been able to relocate sediment short distances away (approx. 1,200 feet).

In late 1999, a comprehensive analysis and sand management tactic was developed by Everts Coastal to improve the dredging program at Port San Luis. Permanent solutions to the problem were identified by the applicant and include: fixed groins, permanent sand retention structures, and opening the breakwater to limit sediment shoaling. All of these permanent structural solutions were ruled out as being infeasible. According to the alternatives analysis performed, this leaves the port with two options: 1) continue removing sediment in the sport launch and mobile hoist areas as it has in the past, or 2) intercept incoming sediment before it gets to these locations.[5] While large sediment retention/interception pits are not included in this proposal, the Harbor District has taken a slightly different, but theoretically similar approach, in that they wish to move larger amounts of accumulated sediment further distances away to slow down sand deposition rates at the facility. The goal of this "preventative maintenance" approach is to intercept as much of the sand moving alongshore as possible before it reaches the harbor facilities. Thus, the Harbor has proposed to increase the area and amount of annual dredging operations. This approach would improve the operational efficiency and cost effectiveness of the dredge program, and is also intended to reduce the frequency of dredging.

[5] *Year 2000 Sediment Management Tactic for Port San Luis*, Everts Coastal, January 11, 2000.

The depth of dredging (-10 MLLW) is necessary to accommodate vessel navigation (i.e. size of vessel and draft). The seaward extent of the new dredge area follows this depth and is supported by bathymetric surveys provided by the applicant. The expansion to the north and south follows the recommendations provided in previous studies and can be seen as a way to intercept sediment before it reaches the harbor facilities (see Exhibit C). Therefore, the spatial extent of the larger dredge area is appropriate.

The calculations that Port San Luis used to arrive at the 250,000 cubic yard estimate was intended to be a very rough estimate that would provide the port with some operational flexibility (32 acre = 1,393,920 sq ft x 5 ft = 6,969,600 cubic ft = 258,133 cubic yd.). The estimate assumes that 5 ft of sediment would be removed from the entire 32-acre site. Clearly, this is an overestimate of the potential material that could be dredged from the site in any one year since some of the area is below the -10 ft MLLW depth limit of the dredging, a 7 acre exclusion zone has been required, and some of the area near the rip-rap is too shallow to be dredged. In this case, it is unlikely that the maximum volume threshold allowed under this permit would be reached and in fact may be much lower.

Reducing the frequency of dredging events may also minimize resource impacts. As described, each dredging episode results in temporary water quality impacts. Therefore, conducting a single large-scale dredge event (perhaps only once during the 5 year permit cycle) would reduce the frequency of such impacts. The result would be an overall environmental benefit over time. Thus, the spatial extent of the expanded dredge site and the larger volume of sediment to be dredged less frequently appear justified under Section 30233.

Section 30233(b) requires that dredge spoils be disposed of in a manner that avoids disruption to habitats. Dredge spoils must be suitable for beach replenishment and placed on appropriate beaches or within suitable longshore currents. To be considered suitable for beach nourishment, sediment must be free of chemical contamination and consist primarily of sand of an acceptable grain size (usually approximately 80% sand, although another commonly used "rule of thumb" is that the material should ideally fall within 10% of the percentage of sand content at the receiver beach). If placed on the dry upland portion of the beach, the grain size should ideally be compatible with the predominant grain size on the receiver beach as well.

Overall, test results have shown that the material to be dredged is almost entirely sand. With the exception of one area north of the Harford Pier, results of particle size analysis indicate that all samples can be characterized as course to medium grained ranging from 94.7%- 99.1% sand.[6] On the whole, chemical contaminants have not been an issue at the harbor. This is supported by letters from the project biologist and the EPA's concurrence that the Army Corps of Engineers determination that the proposed dredged materials are chemically and physically suitable for beneficial reuse as beach nourishment (see Exhibit H for Correspondence and Concurrence Letters).

One area north of Harford pier (labeled the "Jetty" site) raises concern with respect to suitable particle size for beach nourishment. Samples taken from this site show that the percentage of sand was about 70%, which is not suitable for direct beach disposal. Therefore, material from this location will be disposed of in the nearshore intertidal zone and in areas where sediment is expected to have higher percentages of silt and clay. Special Condition 3(d) requires that sediment removed from the Jetty site be disposed of in the

[6] Sand = fraction of sediment passing through #8, but retained by #200 US Standard Sieve

nearshore at Olde Port or Avila Beach, and shall coincide with the flushing events of San Luis Obispo Creek (December – April). This will better mimic the naturally occurring discharge of finer silts and clays from creek areas making this element of the project consistent with the suitability and sensitivity requirements for dredged material under Coastal Act Section 30233(b).

Finally, to ensure that adequate and effective mitigation measures to protect coastal resources are provided during dredging, the effective timeframe of the permit is limited to a five-year period. The areas subject to dredge operations are dynamic environments that are and will continue to be subject to a variety of natural and man-made processes. There is a myriad of potential future changed circumstances that may affect the adequacy of the currently proposed measures, such as: (1) future listing of specie(s) that occurs within harbor areas, or (2) unforeseen rise in contaminant levels of harbor sediments from new upstream land uses or spill events. Therefore, in order to enable the implementation of this permit in a manner which best addresses potential future changed circumstances, the Commission finds that, only as conditioned by Special Condition 2, which limits this permit to a period of five years, can the project be found consistent with the resource protection polices of the Coastal Act.

Water Quality

Potential impacts of dredging on marine water quality include temporarily increased turbidity, reductions in dissolved oxygen, and potential resuspension, remobilization, and redistribution of an chemical contaminants present in the sediments. While these impacts would occur, the pre-dredge operation ambient water quality condition recurs shortly after each dredging episode, and thus the impact to these water quality variables is expected to be adverse but short-term and minor in magnitude and scope.

To assure the material's suitability for ocean disposal, the applicant analyzed the physical and chemical characteristics of the dredge sediments. Because state and federal sediment quality criteria are not available for determining sediment chemical analysis, the National Oceanic and Atmospheric Administration (NOAA) sediment criteria (developed by Long and Morgan in 1990) are often used to interpret sediment data. If the levels of contaminant are higher than the effects range-low (ERL), then it is possible that there will be a biological effect from the contaminant. Test results indicate that the sediments are relatively clean of contaminants. No organo-pesticides or PCB's were detected in any of the samples. Of the metals that were detected, the concentrations present were well below the effects range-low (ERL) described by E.R. Long (1995)[7] as the level below which the likelihood of adverse biological effects would be minimal. Therefore, the material tests show that dredging and nearshore disposal will not adversely affect water quality and marine resources. To ensure that the project is consistent with Coastal Act Section 30412 (b), Special Condition 4 requires the permittee to show evidence of Regional Water Quality Control Board (RWQCB) concurrence, or that none is necessary.

2c. Conclusion

The proposed project represents a comprehensive program for operations and maintenance activities necessary to maintain and improve navigation channels and berthing areas for recreational boating and

[7] *Incidence of Adverse Biological Effects Within Ranges of Chemical Concentrations in Marine and Estuarine Sediments*. Edward R. Long, Coastal Monitoring and Bioeffects Assessment Division (NOAA), 1995.

commercial fishing. Because there are no feasible less environmentally damaging alternatives available to maintain adequate depths within Port San Luis Harbor; and because feasible mitigation measures are provided through Special Conditions 2, 3, 4, and 5 to minimize adverse environmental effects; and because suitable sediments will be conveyed to appropriate beach replenishment sites, the proposed dredging project (as described by the Special Conditions above) is consistent with Coastal Act Sections 30230 through 30233 protecting marine resources.

3. Public Recreation and Access

3a. Applicable Policies

Coastal Act § 30604(c) requires that every coastal development permit issued for new development between the nearest public road and the sea "shall include a specific finding that the development is in conformity with the public access and recreation policies of [Coastal Act] Chapter 3." The proposed project is located seaward of the first public road.

Coastal Act Sections 30210 through 30212 specifically protect public access and recreation. In particular:

> ***§ 30210:*** *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*
>
> ***§ 30211:*** *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*
>
> ***§ 30212 (a):*** *Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects….*

3b. Analysis

Sections 30210-30212 of the Coastal Act provide for the maximization of public access and recreation opportunities. Port San Luis Harbor provides public access and recreational opportunities of regional and statewide significance. These include boat launching, berthing for commercial vessels and recreational boats, boat repair areas, marine-related retail/commercial businesses, kayaking, windsurfing, and diving. The proposed dredging project will strongly benefit public access and recreation, in two ways: (1) by restoring and maintaining adequate water depths in the harbor's navigation channels and berthing areas, and (2) by directing suitable sandy dredge spoils onto nearby beach areas for beach replenishment.

Adverse impacts to public access are possible, but will be of limited duration. First, the pipelines or barges used to transport suitable dredge spoils to designated beach replenishment sites create, from time to time as they move about, a modest impediment to navigation and pedestrian access to the beach. These

pipelines are generally 10-12 inches in diameter, and may need to be traversed by persons walking across the beach. Placement of these pipelines can be managed so that they do not form an unintentional continuous barrier, particularly with respect to the less-nimble beach visitors. To address this concern Special Condition 6 requires dredge operations to be conducted in a manner that minimizes, to the greatest extent possible, any interference with public access at Port San Luis.

3c. Conclusion

In conclusion, the dredge program is necessary to protect Coastal Act priority dependent uses. Although the transport of dredge materials to beach replenishment sites may potentially impact public access on in Port San Luis, the dredge program is essential to allow for commercial and recreational boating access. The permit is conditioned to minimize any possible continuous barrier effects due to pipelines at beach replenishment sites.

The project will protect boating and beach recreational opportunities consistent with Coastal Act Sections 30210 - 30212. Therefore, as conditioned by Special Condition 6, which mitigates for potential beach access impacts, the proposed project would preserve public access and recreational opportunities and, as such, is consistent with the above-cited public access and recreational policies of the Coastal Act.

C. California Environmental Quality Act (CEQA)

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA. This staff report has analyzed the environmental impacts posed by the project and identified changes to the project that are necessary to reduce such impact to an insignificant level. Based on these findings, which are incorporated by reference as if set forth herein in full, the Commission finds that only as modified and conditioned by this permit will the proposed project avoid significant adverse effects on the environment within the meaning of CEQA.